



GUILFORD COUNTY
DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH DIVISION

July 28, 1997

Sun Company Inc.
4041 Market St.
Aston, PA 19014

SUBJECT: MONITOR WELL CONSTRUCTION
PERMIT #: 252-97-MW10-RW0
GUILFORD COUNTY
SITE NAME: Summit Ave. Sunoco

Dear Madam or Sir:

In accordance with your application received July 28, 1997, we are forwarding herewith Monitor Well Construction Permit #252-97-MW10-RW0 for the construction of 10 well(s).

Henceforth, correspondence and data relating to these wells shall be designated as specified in the subject heading.

This Permit will be effective from the date of its issuance and must be renewed annually. Any additional wells installed at the site in excess of the number permitted above requires that a new application be submitted so that the permit may be amended to reflect the correct number of wells on the site. This Permit shall be subject to the conditions and limitations specified therein.

Sincerely,

Kelly C. Gage
Environmental Manager

cc: Incident File
Permit File

GUILFORD COUNTY BOARD OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
PERMIT FOR THE CONSTRUCTION OF
A MONITOR WELL OR WELL SYSTEM

In accordance with the provisions of the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells,

PERMISSION IS HEREBY GRANTED TO

Sun Company, Inc.

for

Summit Ave. Sunoco

FOR THE CONSTRUCTION OF 10 well(s) located at 1103 Summit Ave., Greensboro, North Carolina in Guilford County in accordance with the application dated April 21, 1997 and in conformity with the specifications and supporting data, all of which are filed with the Guilford County Health Department, Division of Environmental Health and are considered a part of this Permit.

This Permit is for well construction only, and does not waive any provisions or requirements or any other applicable laws or regulations.

Construction of a well under this Permit shall be in compliance with the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells, and any other laws and regulations pertaining to well construction.


This Permit will be effective from the date of its issuance until the site assessment and/or remediation has been completed, and shall be subject to other specified conditions, limitations or exceptions as follows:

1. Written permission must be obtained from the property owner prior to construction of the well.
2. A permanent identification plate with the date of construction, depth of well, screen interval, depth of grout, drilling contractor, and his registration number shall be attached to the well head or the outer protective steel casing.

3. The well construction completion form and all water quality data are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
4. All laboratory analyses of groundwater samples collected from the permitted monitor well(s) are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
5. All additional investigative findings in relation to the pollution sources being monitored, as indicated under Item #9 of the permit application, are to be submitted to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage within sixty (60) days of well completion, and quarterly thereafter.
6. The well shall be afforded a means of protection against vandalism, damage, or unauthorized use.
7. When any monitor well is no longer useful for its intended purpose, it shall be abandoned in compliance with the Guilford County Board of Health Rules and Regulations Governing the Construction, Repair, and Abandonment of Wells and a well abandonment form sent to the Guilford County Division of Environmental Health, 301 N. Eugene Street, Greensboro, North Carolina, 27401 to the attention of Kelly Gage.
8. The monitor well shall be constructed in accordance with the Guilford County Board of Health's recommended construction details.
9. If additional monitor wells, not included on the original application, need to be constructed, a new application must be submitted, so that the Permit may be amended.

Permit issued July 28, 1997

FOR THE GUILFORD COUNTY BOARD OF HEALTH



Kelly Gage, Environmental Manager
Division of Environmental Health

By Authority of the Guilford County Board of Health
Permit #252-97-MW10-RW0

GUILFORD COUNTY
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
APPLICATION FOR PERMIT TO CONSTRUCT A MONITORING/RECOVERY
WELL SYSTEM

Date: 4/21/97

In accordance with the provisions of the Guilford County Board of Health Rules and Regulations Governing the Construction and Abandonment of Monitoring and Recovery Wells, application is hereby made for a permit to construct monitoring/recovery wells.

1. Site Name: Former Summit Avenue Sunoco Incident #: 10141
2. Address of Well: 1103 Summit Avenue, Greensboro, NC
3. Name of Well Owner: Sun Company, Inc. Telephone: 610-859-5705
4. Owner's Mailing Address: 4041 Market Street, Aston, PA 19014
5. Property Owner (if different from well owner): _____
6. Property Owners' Mailing Address: _____
7. Reason for Monitoring Well(s): Environmental Assessment
(e.g. nondischarge permit, suspected contamination, environmental assessment, etc.)
8. Type of facility for which the well is needed: Underground Storage Tank
(e.g. nondischarge facility, waste disposal site, landfill, underground storage tank, etc.)
9. Contaminant type (if applicable): Organics
(e.g. nutrients, organics, heavy metals, etc.)
10. Are there existing recovery wells associated with the monitoring well(s)? NO
If yes, how many? _____ Number of new/additional recovery well(s) to be installed _____
11. Distance to a known waste or pollution source: Various feet
12. Are any water supply wells located <500 feet from the proposed well? No
If yes, give distance : _____ feet
13. Well Driller: Various
14. Registration #: Various
15. Driller's Address: Various
Telephone: _____

Fee: \$ 200 -

Date Paid: 5-5-97

Receipt#: 15372

(Continued on Reverse)

PROPOSED MONITORING/RECOVERY WELL CONSTRUCTION INFORMATION

1. Total number of wells to be constructed: 10 Number to be completed in bedrock: None
Number to be completed in unconsolidated material: 10
2. Estimated depth of well(s): 30 feet
3. Gravel or sand pack interval (if appropriate): From 15 feet to 30 feet
4. Type of casing used: PVC
(i.e. PVC, stainless steel, galvanized steel, etc.)
5. Diameter of casing: 4 & 2 inches Thickness of casing: _____ inches
6. How will the well(s) be secured? Locking Well Cap
7. Beginning construction date: Existing Wells
8. Completion date: Not applicable

ADDITIONAL INFORMATION

1. ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING:
 - (a) PROPOSED MONITORING/RECOVERY WELL(S)
 - (b) ALL EXISTING MONITORING/RECOVERY WELLS AND TEST BORINGS WITHIN THE PROPERTY BOUNDARY
 - (c) ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WELL
 - (d) AT LEAST TWO REFERENCE POINTS (e.g. numbered roads, intersections, streams, etc.)
2. PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED DEPTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL THICKNESS, WELL HEAD COMPLETION DETAILS, ETC.

The Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and conditions of the Well Construction Permit as regulated under the Guilford County Board of Health Rules and Regulations Governing the Construction and Abandonment of Monitoring and Recovery Wells and accepts full responsibility for compliance with these rules.

Gabriel E. Beyer
Signature of Applicant or Agent

Project Geologist
Title

If the property is owned by someone other than the applicant, the property owner hereby consents to allow the applicant to construct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that these monitoring/recovery wells conform to the Guilford County Board of Health well construction standards.

Signature of Property Owner (if different from applicant)

Attach agreements.

FOR OFFICE USE ONLY

Quad No. _____ Serial No. _____
Lat. _____ Long. _____ Pa. _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1070-WM-0495

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town: Greensboro, NC

(Road, Community, or Subdivision and Lot No.)

2. OWNER Sunoco/Mid-State Oil Company
ADDRESS 1835 Market St. 11 Penn Ctr. 9th Floor
Philadelphia PA 19103
(Street or Route No.)
City or Town State Zip Code

3. DATE DRILLED 12/3/92 USE OF WELL Monitoring

4. TOTAL DEPTH 22 ft CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
TOP OF CASING IS _____ FT. ABOVE LAND SURFACE
☐ below

7. YIELD (gpm): N.A. METHOD OF TEST N.A.

8. WATER ZONES (depth): _____

County: Guilford

Depth From To
DRILLING LOG
Formation Description

See Soil Test Boring Log
MW-1

9. CHLORINATION: Type N.A. Amount N.A.

10. CASING:

Depth	Diameter	Wall Thickness or Weight/Ft.	Material
From <u>0</u> To <u>5</u> Ft.	<u>4-in</u>	<u>Sch 40</u>	<u>PVC</u>
From _____ To _____ Ft.	_____	_____	_____
From _____ To _____ Ft.	_____	_____	_____

If additional space is needed use back of form.

LOCATION SKETCH

(Show direction and distance from at least two State Roads, or other map reference points)

11. GROUT:

Depth	Material	Method
From <u>0</u> To <u>3</u> Ft.	<u>Neat Cement</u>	<u>Tremie</u>
From _____ To _____ Ft.	_____	_____

See Monitoring Well Location Map

12. SCREEN:

Depth	Diameter	Slot Size	Material
From <u>5</u> To <u>20</u> Ft.	<u>4</u> in	<u>0.010</u> in	<u>PVC</u>
From _____ To _____ Ft.	_____ in	_____ in	_____
From _____ To _____ Ft.	_____ in	_____ in	_____

13. GRAVEL PACK:

Depth	Size	Material
From <u>4</u> To <u>20</u> Ft.	_____	<u>Sand</u>
From _____ To _____ Ft.	_____	_____

14. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

2/23/93

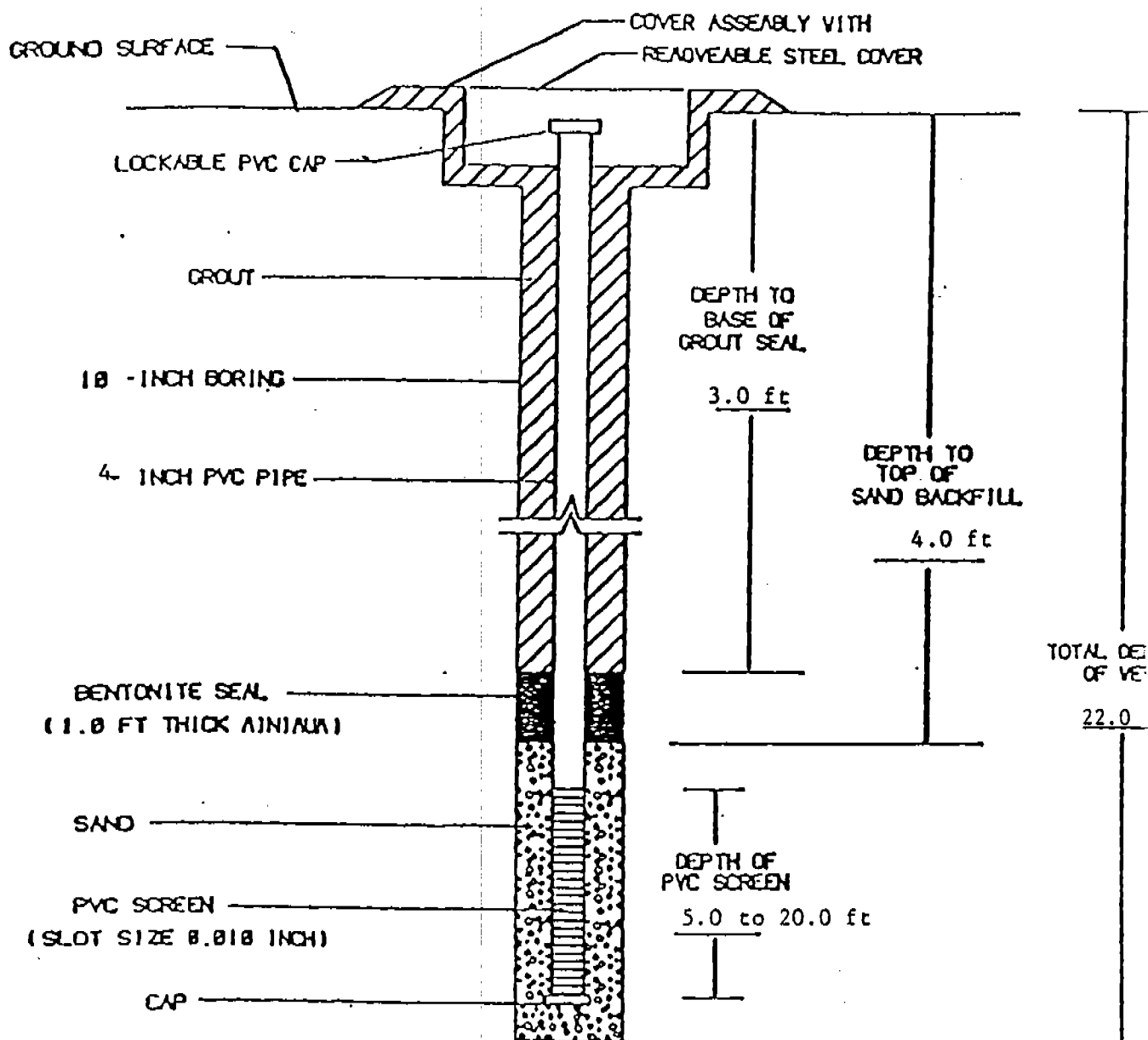
DATE

GW-1 Revised 11/84

Submit original to Division of Environmental Management and copy to well owner.

GROUND-WATER MONITORING WELL INSTALLATION RECORD

JOB NAME Summit Ave Sunoco JOB NUMBER 259-90007-01
 WELL NUMBER MW-1 GROUND SURFACE ELEVATION _____
 LOCATION Greensboro, North Carolina
 INSTALLATION DATE December 3, 1992



NOTE: ALL PVC PIPE JOINTS
 HAVE SCREW CONNECTORS

FOR OFFICE USE ONLY

Quadr. No. _____ Serial No. _____
 Lat. _____ Long. _____ P.C. _____
 Minor Basin _____
 Basin Code _____
 Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION
PERMIT NUMBER: 40-1070-WM-0495

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town Greensboro, NC

County Guilford

Road, Community, or Subdivision and Lot No.)

2. OWNER Sunoco/Mid-State Oil Company

ADDRESS 1835 Market St. 11 Penn Ctr. 9th Floor
 Philadelphia (Street or Route No.) PA 19103

City or Town	State	Zip Code
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3. DATE DRILLED 12/3/92 USE OF WELL Monitoring

4. TOTAL DEPTH 25 ft CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
☐ below
TOP OF CASING IS _____ FT. ABOVE LAND SURFACE

7. YIELD (gpm): N.A. METHOD OF TEST N.A.

8. WATER ZONES (depth): _____

9. CHLORINATION: Type N.A. Amount N.A.

10. CASING:

Depth Diameter Wall Thickness or Weight/FL Material
 From 0 To 5 Ft. 4-in Sch 40 PVC
 From _____ To _____ Ft. _____ _____ _____
 From _____ To _____ Ft. _____ _____ _____

- ## 11. GROUT:

Depth		Material	Method
From 0	To 3	Fl. Neat Cement	Tremie
From	To	Fl.	

- 12. SCREEN:**

Depth		Diameter		Slot Size		Material	
From 5	To 20	FL 4	h 0.010	h		PVC	
From	To	FL	h				
From	To	FL	h				

13. GRAVEL PACK:

Depth Size Material

From 4 To 20 Ft. Sand

From To Ft.

14. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH IS NCAC 2C. WELL CONSTRUCTION STANDARDS AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

2/23/93

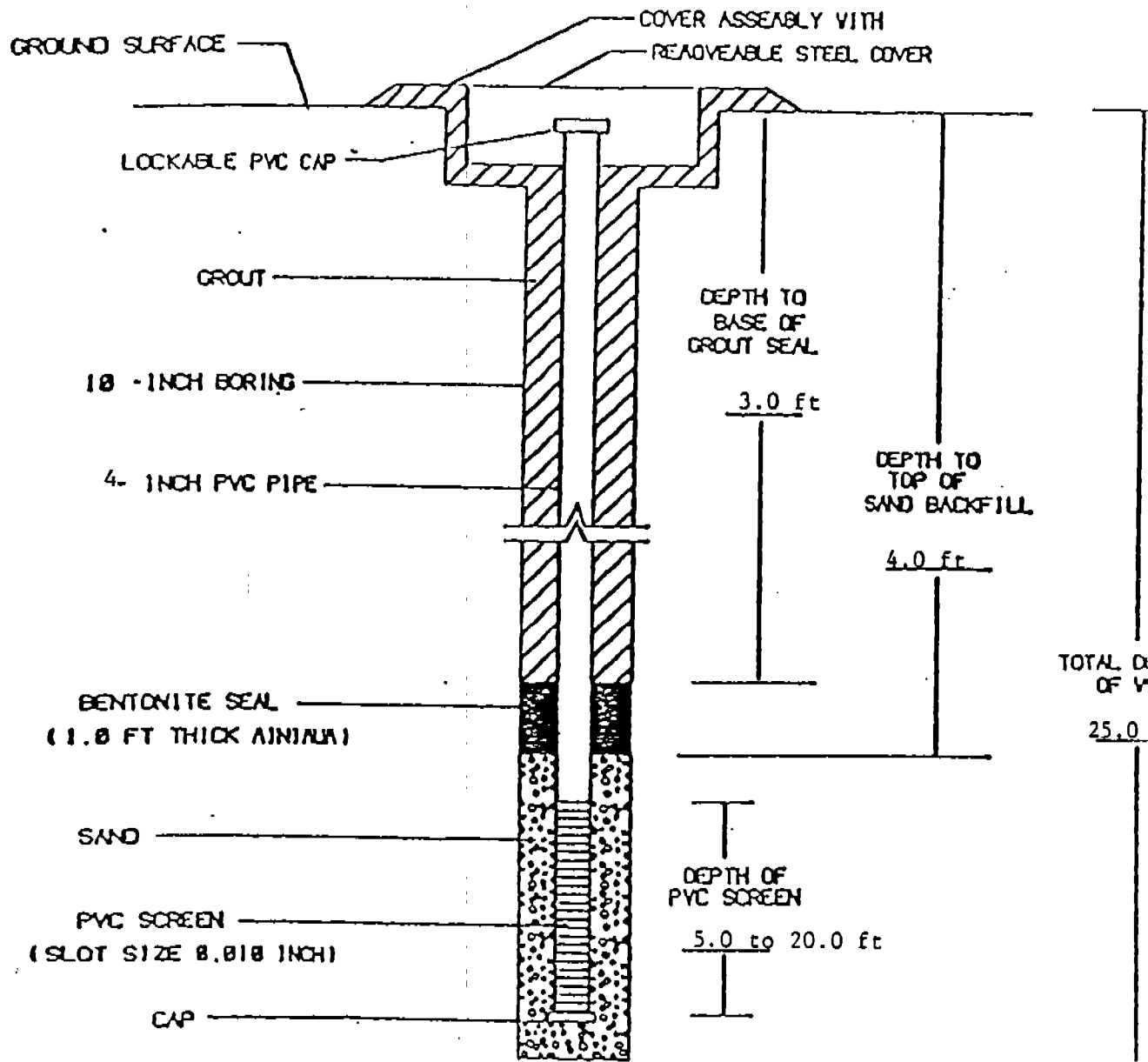
DATE _____

NY-1 Revised 11/84

Submit original to Division of Environmental Management and copy to well owner.

GROUND-WATER MONITORING WELL INSTALLATION RECORD

JOB NAME Summit Ave Sunoco JOB NUMBER 259-90007-01
 WELL NUMBER MW-2 GROUND SURFACE ELEVATION _____
 LOCATION Greensboro, North Carolina
 INSTALLATION DATE December 3, 1992



NOTE: ALL PVC PIPE JOINTS
 HAVE SCREW CONNECTORS

FOR OFFICE USE ONLY

Qued. No. _____ Serial No. _____
Lat. _____ Long. _____ Pa. _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION
PERMIT NUMBER: 40-1070-231-0495

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town: Greensboro, NC

County: Gailford

(Road, Community, or Subdivision and Lot No.)

2. OWNER Sunoco/Mid-State Oil Company

ADDRESS 1835 Market St. 11 Penn Ctr. 9th Floor
Philadelphia PA 19103
 City or Town State Zip Code

3. DATE DRILLED 12/3/92 USE OF WELL Monitoring

4. TOTAL DEPTH 20 ft CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
☐ below
 TOP OF CASING IS _____ FT. ABOVE LAND SURFACE

7. YIELD (gpm): N.A. METHOD OF TEST N.A.

8. WATER ZONES (depth): _____

9. CHLORINATION: Type N.A. Amount N.A.

10. CASING:

Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0	To 5	Ft. 4-in	Sch 40	PVC
From	To	Ft.		
From	To	Ft.		

If additional space is needed use back of form.

LOCATION SKETCH

(Show direction and distance from at least two State Roads, or other map reference points)

11. GROUT:

Depth		Material	Method
From 0	To 3	FL Neat Cement	Tremie
From	To	FL	

See Monitoring Well Location Map

12. SCREEN:

Depth		Diameter	Slot Size	Material
From 5	To 20	FL 4	in 0.010	in PVC
From	To	FL	in	in
From	To	FL	in	in

13. GRAVEL PACK:

Depth Size Material
From 4 To 20 Ft. Sand
From To Ft.

14. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

2/23/93

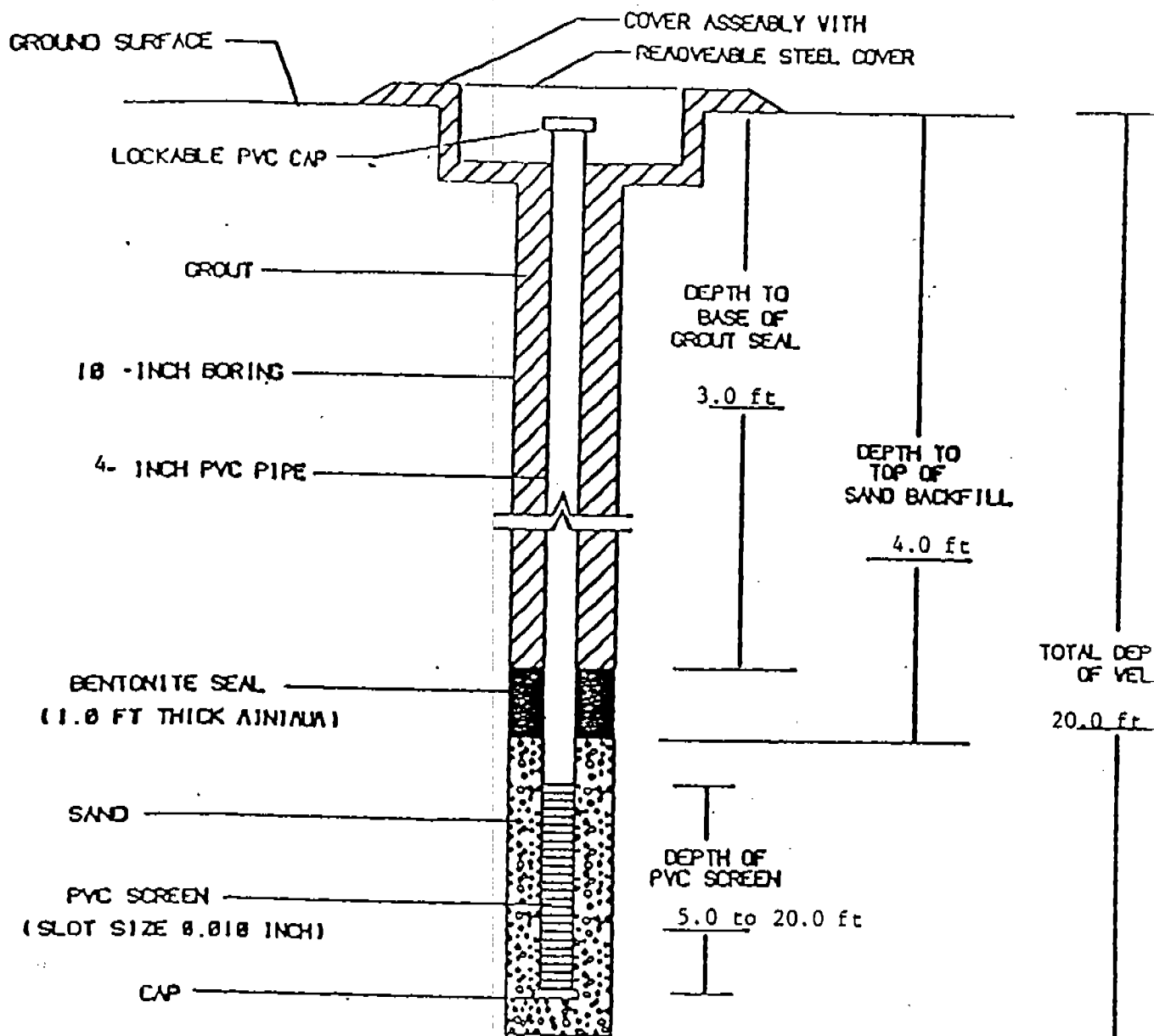
DATE _____

RW-1 Envision 11/84

Submit original to Division of Environmental Management and copy to web owner.

GROUND-WATER MONITORING WELL INSTALLATION RECORD

JOB NAME Summit Ave Sunoco JOB NUMBER 259-90007-01
 WELL NUMBER MW-3 GROUND SURFACE ELEVATION _____
 LOCATION Greensboro, North Carolina
 INSTALLATION DATE December 3, 1992



NOTE: ALL PVC PIPE JOINTS
 HAVE SCREW CONNECTORS

FOR OFFICE USE ONLY

Qued. No. _____ Serial No. _____
Lat. _____ Long. _____ Pa. _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION
PERMIT NUMBER: 40-1070-WN-0495

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town Greensboro, NC

County: Guilford

(Road, Community, or Subdivision and Lot No.)

2. OWNER Sunoco/Mid-State Oil Company

ADDRESS 1835 Market St., 11 Penn Ctr., 9th Floor
 (Street or Route No.)
Philadelphia PA 19103
 City or Town State Zip Code

3. DATE DRILLED 12/3/92 USE OF WELL Monitoring

4. TOTAL DEPTH 21 ft CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
☐ below
TOP OF CASING IS _____ FT. ABOVE LAND SURFACE

7. YIELD (gpm): N.A. METHOD OF TEST N.A.

8. WATER ZONES (depth): _____

9. CHLORINATION: Type N.A. Amount N.A.

10. CASING:

Depth		Diameter	Wall Thickness or Weight/ft.	Material
From 0	To 5	ft. 4-in	Sch 40	PVC
From	To	ft.		
From	To	ft.		

If additional space is needed use back of form.

LOCATION SKETCH

(Show direction and distance from at least two State Roads, or other map reference points)

11. GROUT:

Depth		Material	Method
From 0	To 3	Fl. Neat Cement	Tremie
From	To	Fl.	

See Monitoring Well Location Map

12. SCREEN:

Depth		Diameter	Slot Size	Material
From 5	To 20	Fl. 4	h. 0.010	h. PVC
From _____	To _____	Fl. _____	h. _____	h. _____
From _____	To _____	Fl. _____	h. _____	h. _____

13. GRAVEL PACK:

Depth		Size	Material
From 4	To 20	Fl.	Sand
From	To	Fl.	

14. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH IS-HC-12C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

2/23/93

SIGNATURE OF CONTRACTOR OR AGENT

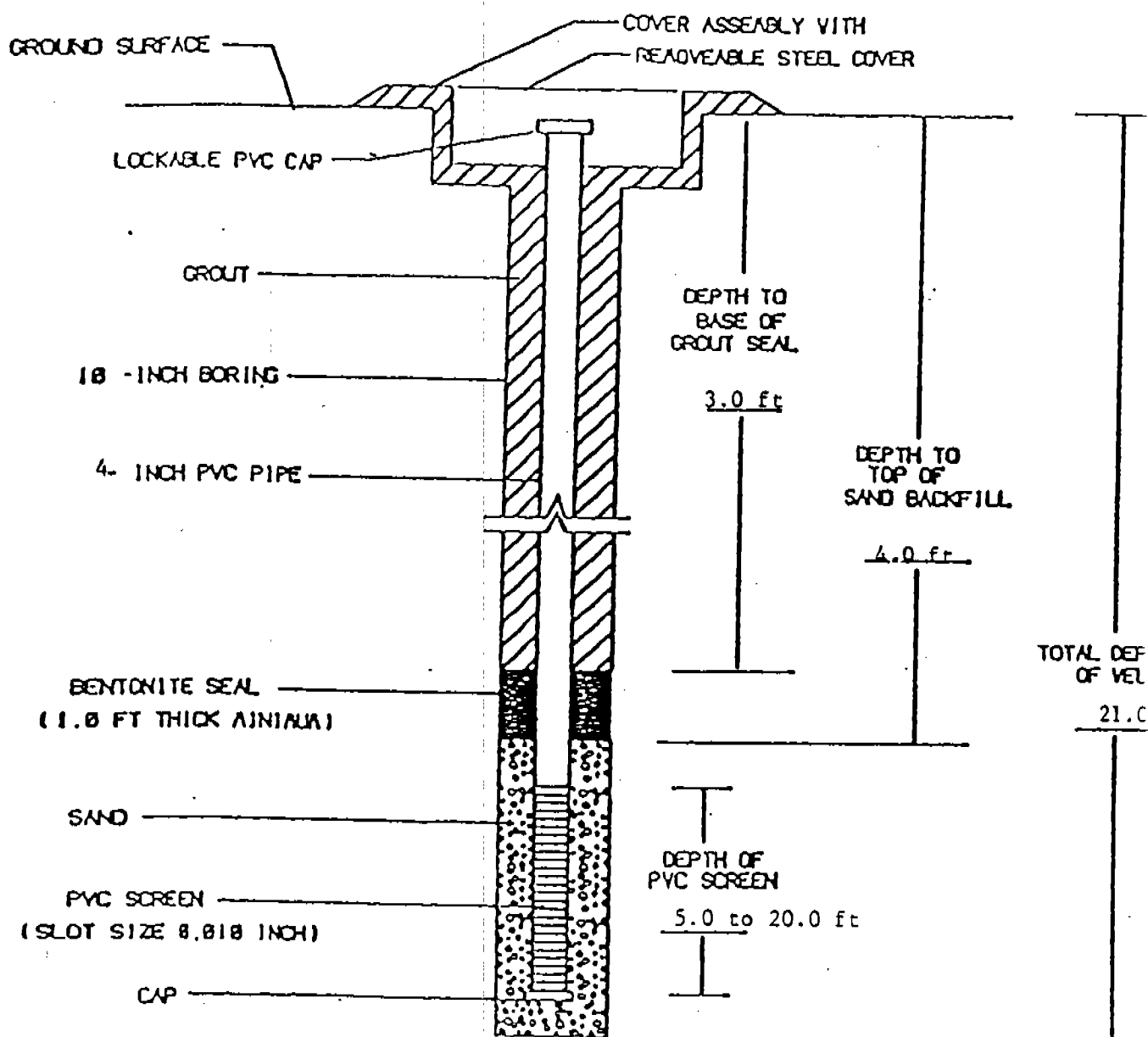
DATE _____

RW-1 Revised 11/84

Submit original to Division of Environmental Management and copy to well owner.

GROUND-WATER MONITORING WELL INSTALLATION RECORD

JOB NAME Summit Ave Sunoco JOB NUMBER 259-90007-01
 WELL NUMBER MW-4 GROUND SURFACE ELEVATION _____
 LOCATION Greensboro, North Carolina
 INSTALLATION DATE December 3, 1992



NOTE: ALL PVC PIPE JOINTS
HAVE SCREW CONNECTORS

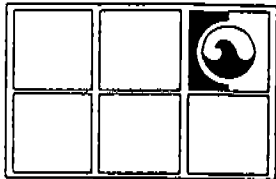
VMW-5

STATE WELL CONSTRUCTION
PERMIT NUMBER: _____

14. REMARKS: _____

[illegible]

DATE



GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.

PROJECT NAME: SUN - SUMMIT AVE.

PROJECT NUMBER: 053245445

LOCATION: SUMMIT AVE.

GREENSBORO, NC

DATE 01/10/93

WELL NUMBER VMW-5

DRILLER: FISHBURNE DRILLING, INC.

CASED FROM 0 TO 30' WITH SCH 40 PVC

SCREENED FROM 30' TO 35' WITH 0.020" SLOT

WELL DEPTH 35' WELL DIAMETER 2"

ELEVATION 598.21'

DRILL RIG CME 75

DRILL METHOD HOLLOW STEM AUGER

DATE(S) DRILLED MAY 27, 1993

LOGGED BY T. WATSON

ANNULUS COMPLETION SANDPACK 35'-28'; BENTONITE 28'-26'; GROUT 26'-0

OTHER 6" OUTER CASING SET AT 28'; COMPLETED W/LOCKING CAP & CONC. EMBEDDED MH COV.

WELL DETAIL	DEPTH	GRAPHIC COLUMN	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
			ASPHALT/CRUSHER RUN: To 6"		
			SILT/SILTY CLAY: Brn, little F to M-grnd.	0-2'	BC=8-6-7-6 PID=136
			slight hydrocarbon (HC) odor		
	5		SILT: Orange-gry, mottled, some clay & F	2-4'	BC=6-8-15-16 PID=56.2
			M-grained sand, dry-damp, slight HC odor		
			Silt: As above, damp-dry	4-6'	BC=3-5-5-6 PID=70.1
			SILT: Orange-lt. gry, some F to M-grained	6-8'	BC=6-6-8-9 PID=322
	10		sand, clayey, moist (Lab Sample)		
			SILT: As above, clayey & sandy, moist-wet	8-10'	BC=3-3-4-6 PID=117
			SILT: Orange, some clay, tr. F-grnd.	10-12'	BC=6-6-8-7 PID=50.4
			sand, saturated, thin layer of gravel,		
	15		soft		
			SILT: Orange-red-tan, mottled, some-	14-16'	BC=2-2-1-2 PID=34.3
			little clay, tr. F-grnd. sand, saturated,		
			black organic staining (vein), soft		
	20		SILT: As above, black organic staining,	19-21'	BC=1-1-3-2 PID=22.7
			saturated, soft		
	25		SILT: Or, little CL, tr. F-grnd. sand,	24-26'	BC=3-2-2-3 PID=14.3
			litte blk org. staining, sl. foliated,		
			thin layer of SAPROLITE @ 25', saturated,		
			soft		
	30		SILT: As above to 29' then SAPROLITE:	28-30'	BC=27-40-21-50/5 PID=13.2
			Wht-lt. gry, SILT - very F-grnd. sand, v.		
			F mica, appears to be weathered granite,		
			(not foliated)		
	35				

WELL CONSTRUCTION RECORD

MW-6

FOR OFFICE USE ONLY			
Quad. No.	Serial No.		
Lat.	Long.	Pc.	
Minor Basin			
Basin Code			
Header-Ent.	GW-1-Ent.		

DRILLING CONTRACTOR FISHBURN DRILLING, INC.
DRILLER REGISTRATION NUMBER 951

STATE WELL CONSTRUCTION
PERMIT NUMBER: _____

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town: GREENSBORO, NC
1102 SUMMIT AVE.
(Road, Community, or Subdivision and Lot No.)

County: GUILFORD

2. OWNER SUN/MID-STATE OIL CO.

ADDRESS 4241 MARKET ST.
(Street or Route No.)
ASTON, PA 19014
City or Town State Zip Code

Depth From To
DRILLING LOG
Formation Description

3. DATE DRILLED 5/27/93 USE OF WELL Monitoring

4. TOTAL DEPTH 23' CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
☒ below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE

7. YIELD (gpm): _____ METHOD OF TEST _____

8. WATER ZONES (depth): _____

9. CHLORINATION: Type _____ Amount _____

10. CASING:

Depth	Diameter	Wall Thickness or Weight/Ft.	Material
From <u>0</u> To <u>3</u> Ft.	<u>4"</u>	<u>SCH 40</u>	<u>PVC</u>
From _____ To _____ Ft.	_____	_____	_____
From _____ To _____ Ft.	_____	_____	_____

If additional space is needed use back of form.

11. GROUT:

Depth	Material	Method
From <u>0</u> To <u>1'</u> Ft.	<u>Portland Cement</u>	_____
From <u>1'</u> To <u>2'</u> Ft.	<u>Bentonite</u>	_____

12. SCREEN:

Depth	Diameter	Slot Size	Material
From <u>3'</u> To <u>23'</u> Ft.	<u>4"</u>	<u>h 0.020 h</u>	<u>PVC</u>
From _____ To _____ Ft.	_____	_____	_____
From _____ To _____ Ft.	_____	_____	_____

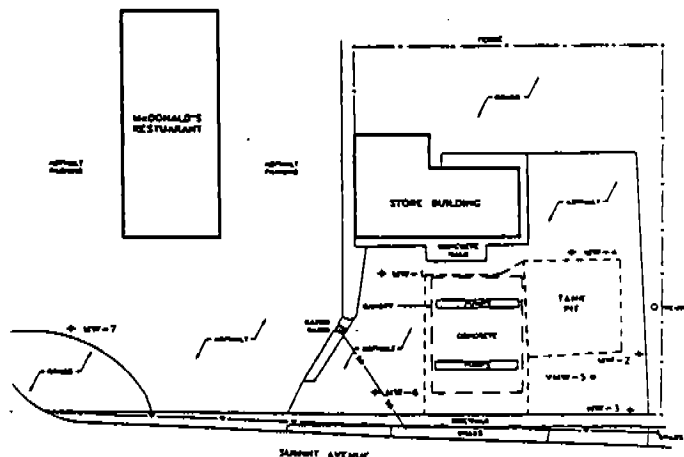
13. GRAVEL PACK:

Depth	Size	Material
From <u>2'</u> To <u>23'</u> Ft.	<u>#2 Washed</u>	<u>Sand</u>
From _____ To _____ Ft.	_____	_____

14. REMARKS: _____

LOCATION SKETCH

(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

DATE



GREENSBORO, NC

DRILLER: FISHBURNE DRILLING, INC.

LOGGED BY T. WATSON

OTHER WELL COMPLETED WITH LOCKING CAP & CONCRETE EMBEDDED MANHOLE COVER

[illegible]

FOR OFFICE USE ONLY

Quad No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header-Ent. _____ QW-1-Ent. _____

WELL CONSTRUCTION RECORD

MW-7

DRILLING CONTRACTOR FISHBURN DRILLING, INC.
DRILLER REGISTRATION NUMBER 951

STATE WELL CONSTRUCTION
PERMIT NUMBER: _____

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town: GREENSBORO, NC
1103 SUMMIT AVE.
(Road, Community, or Subdivision and Lot No.)

County: GUILFORD

2. OWNER SUN / MID-STATE OIL CO.

ADDRESS 4041 MARKET ST.
(Street or Route No.)
ASTON, PA 19014
City or Town State Zip Code

Depth
From _____ To _____
DRILLING LOG
Formation Description

3. DATE DRILLED 12/9/93 USE OF WELL Monitoring

4. TOTAL DEPTH 25' CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above TOP OF CASING,
☒ below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE

7. YIELD (gpm): _____ METHOD OF TEST _____

8. WATER ZONES (depth): _____

9. CHLORINATION: Type _____ Amount _____

10. CASING:

Depth	Diameter	Wall Thickness or Weight/FT.	Material
From <u>0</u> To <u>5'</u> Fl. <u>2"</u>	<u>SCH 40</u>	<u>PVC</u>	
From _____ To _____ Fl. _____			
From _____ To _____ Fl. _____			

11. GROUT:

Depth	Material	Method
From <u>0</u> To <u>2'</u> Fl. <u>Portland Cement</u>		
From <u>2'</u> To <u>3'</u> Fl. <u>Bentonite</u>		

12. SCREEN:

Depth	Diameter	Slot Size	Material
From <u>5'</u> To <u>25'</u> Fl. <u>2"</u>	<u>h 0.020 h</u>	<u>PVC</u>	
From _____ To _____ Fl. _____	<u>h</u>	<u>h</u>	
From _____ To _____ Fl. _____	<u>h</u>	<u>h</u>	

13. GRAVEL PACK:

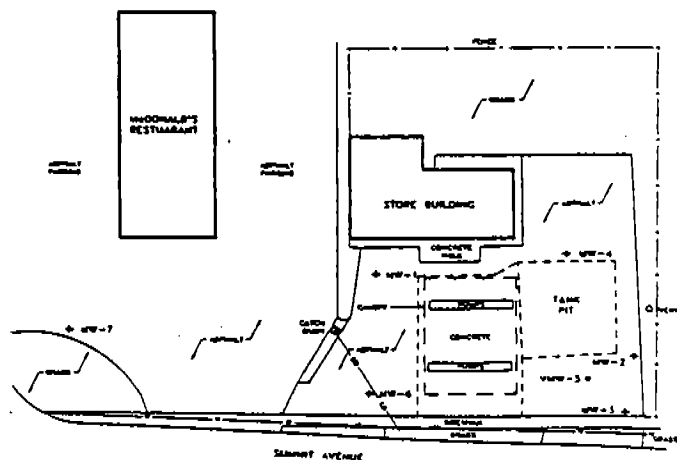
Depth	Size	Material
From <u>3'</u> To <u>25'</u> Fl. <u># 2 Washed Sand</u>		
From _____ To _____ Fl. _____		

14. REMARKS:

If additional space is needed use back of form.

LOCATION SKETCH

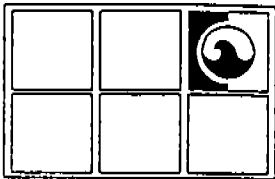
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

DATE



GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.

PROJECT NAME: SUN - SUMMIT AVE.

PROJECT NUMBER: 053245445

LOCATION: SUMMIT AVE.

GREENSBORO, NC

DRILLER: FISHBURNE DRILLING, INC.

DATE 01/10/93

WELL NUMBER MW-7

CASED FROM 0 TO 5' WITH SCH 40 PVC

SCREENED FROM 5' TO 25' WITH 0.020" SLOT

WELL DEPTH 25' WELL DIAMETER 2"

ELEVATION 595.14'

DRILL RIG CME 75

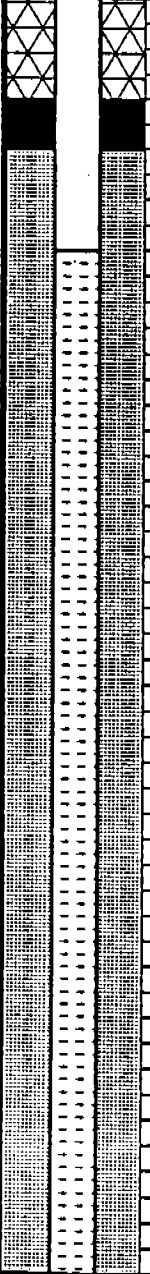

DRILL METHOD HOLLOW STEM AUGER

DATE(S) DRILLED DECEMBER 9, 1993

LOGGED BY T. WATSON

ANNULUS COMPLETION SANDPACK 25'-3'; BENTONITE 3'-2'; GROUT 2'-0

OTHER WELL COMPLETED WITH LOCKING CAP & CONCRETE EMBEDDED MANHOLE COVER

WELL DETAIL	DEPTH	GRAPHIC COLUMN	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
			ASPHALT/CRUSHER RUN: To 8"-10"		
			SANDY CLAY: Grey, F-grnd. sand, some silt, plastic, damp	0-3'	(HAND) PID=1.0
			SILTY CLAY: Orange-tan-grey, little F- grnd. sand, damp	3-5'	BC=3-4-5-8 PID=0.8
	5		SILT: Tan-lt. gry, little-trace F-grnd. sand, little clay, damp-moist	5-7'	BC=3-5-11-11 PID=0.7
			SILT: Tan-lt. gry/grn, tr. F-grnd. sand, little clay, damp-moist, (Lab Sample)	7-9'	BC=4-5-7-9 PID=22.5
	10		SILT: As above, moist-wet	9-11'	BC=7-5-7-11 PID=3.9
			SILT: Tan-or-grn/gry, little-some F-grnd. sand, little clay, sl. foliation, wet	13-15'	BC=5-6-8-9 PID=2.8
	15				
			SANDY SILT: Tan-orange-green, trace clay, slight foliation, damp	18-20'	BC=9-11-16-20 PID=4.6
	20				
			SAPROLITE (SANDY SILT): Tan-orange-green- white, F to M-grnd. sand, slightly foliated, damp	23-25'	BC=9-11-14-19 PID=2.8
	25				

Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header-Ent _____ QW-1-Ent _____

VMW-5

STATE WELL CONSTRUCTION
PERMIT NUMBER: *N/A*

County: Guildford

<u>Depth</u>		<u>DRILLING LOG</u>
<u>From</u>	<u>To</u>	<u>Formation Description</u>

Zip Code

TOP OF CASING IS 2 FT. ABOVE LAND SURFACE.

WATER ZONES (depth):

5. CHLORINATION: Type _____ Amount _____

10. CASING:

Depth		Diameter	Wall Thickness or Weight/FL	Material
From	0 To 50'	FL. 2"	SC440	PVC
From	0 To 45'	FL. 6"	SC440	PVC
From	_____ To _____	FL. _____	_____	_____

11. GROUT:

	Depth	Material	Method
From	<u>47.5'</u>	To <u>45'</u>	Fl. <u>Bentonite</u>
From	<u>45'</u>	To <u>0</u>	Fl. <u>Hot Cement Grout</u>

12. SCREEN:

Depth		Diameter	Slot Size	Material
From <u>50'</u>	To <u>55'</u>	FL <u>2"</u>	h <u>0.020</u> h	<u>DVC</u>
From _____	To _____	FL _____	h _____ h	_____
From _____	To _____	FL _____	h _____ h	_____

12. GRAVEL PACK:

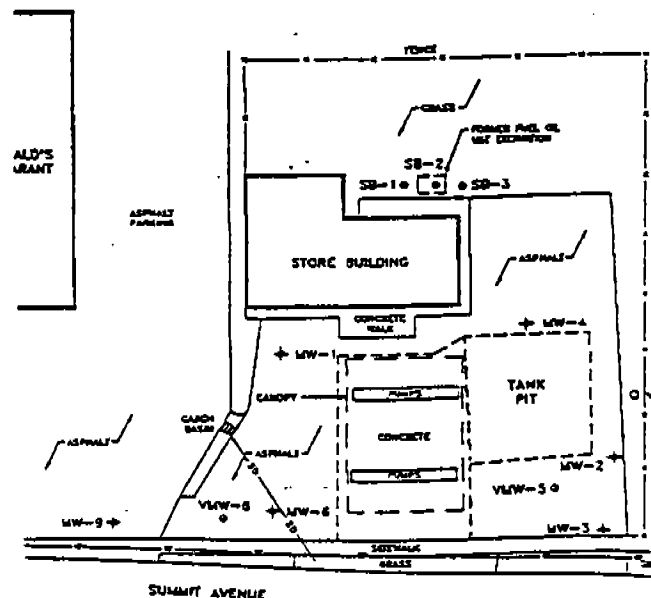
Depth	Size	Material
From <u>55'</u> To <u>47.5'</u>	Fl. <u>#2 Washed</u>	<u>Sand</u>
From _____ To _____	Fl. _____	_____

14. REMARKS:

If additional space is needed use back of form.

LOCATION SKETCH

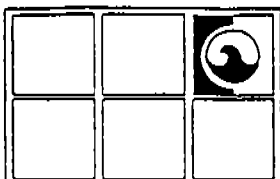
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SIGNATURE OF CONTRACTOR OR AGENT

DATE _____



GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.
PROJECT NAME: SUN - SUMMIT - AVE.
PROJECT NUMBER: 052245445
LOCATION: 1103 SUMMIT - AVE
GREENSBORO NC
DRILLER: FISHERMAN DRILLING, INC.

DATE 8/18/94 WELL NUMBER VMW-8

CASED FROM 0' TO 50' WITH SCH 40 PVC

SCREENED FROM 50' TO 55' WITH 0.020 slot

WELL DEPTH 55' WELL DIAMETER 2"

ELEVATION

ANNULUS COMPLETION Sandpack: 55' - 47.5', Bentonite: 47.5' - 45', Grout: 45' - 0

OTHER 6" outer casing set to 45'

DRILL RIG CME 75 HD

DRILL METHOD HSP / ROTARY P.

DATE(S) DRILLED 8/17 - 18/94

LOGGED BY T. WATSON

WELL DETAIL	DEPTH	GRAPHIC COLUMN	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS PID
			Asphalt & Gravel run → SANDY		
	5	SANDY CLAY	CLAY: Gray, Damp		
			SANDY CLAY: Brown, Fine - Med. Gr.	5-7	2.4
	10	SANDY/CLAYEY SILT	Some Silt, Damp		
			SANDY/CLAYEY SILT: Brown, Fine -	9-11	3.3
	15		Med. Gr., Damp - Moist		
			SANDY/CLAYEY SILT: AA, Moist	14-16	3.3
	20		SANDY SILT: Brown, Fine - Med. Gr.	19-21	6.6
	25		Some Clay, Wet		
			SANDY SILT/SILTY SAND: Brown, Fine -	24-26	19.1
	30		Med. Gr., Little Clay, Wet - Satur.		
			SANDY SILT/SILTY SAND: AA, Wet	29-31	13.1
	35		SANDY SILT/SILTY SAND: AA, Wet	34-36	26.6
	40				
	45				
	50	SANDOLITE	SANDOLITE (SANDY SILT)	49-51	
	55				
	60				
	65				